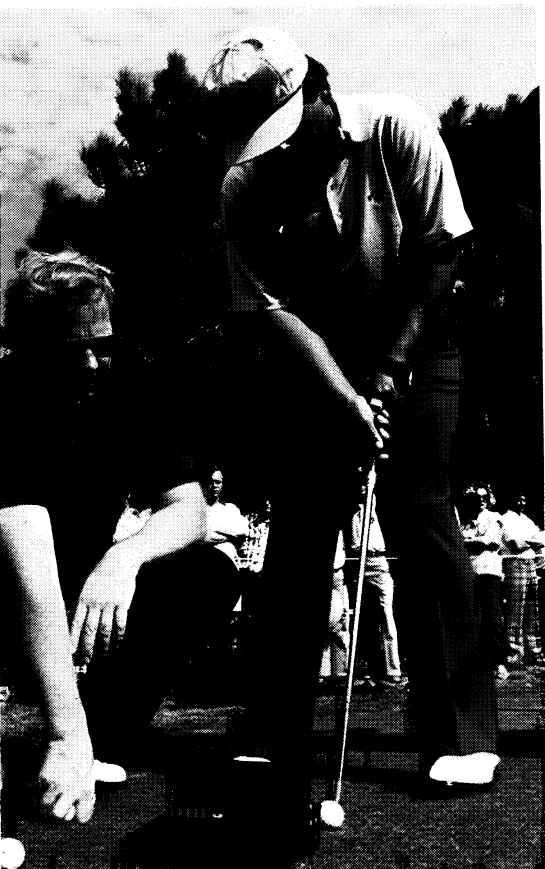


Saving Strokes with Space Technology

Among spinoffs for home and recreational use are a pair of instructional aids for golfers



Pro circuit gallery favorite Lee Trevino tests the Teacher Alignment Computer, which he uses regularly.

Golfers, attention.

Are you one of the many devotees of the game who feel that putting, which seems to the uninitiated the simplest part of golf, is actually the most difficult? Have you ever thought, "If they can send men to the moon, why can't they invent something that would make me a better putter?"

Someone has—and space technology is involved. The someone is David T. Pelz, president of Sunmark Division, Preceptor Golf Limited, Laurel, Maryland, a former physicist with Goddard Space Flight Center who worked on a number of NASA satellite programs. A top amateur golfer, Pelz put his NASA-acquired expertise to work in development of two putting aids now marketed by his company. He is thus an example of a personnel-type spinoff, wherein a scientist or engineer moves to a new field of endeavor and applies his aerospace know-how to invention of non-aerospace products.

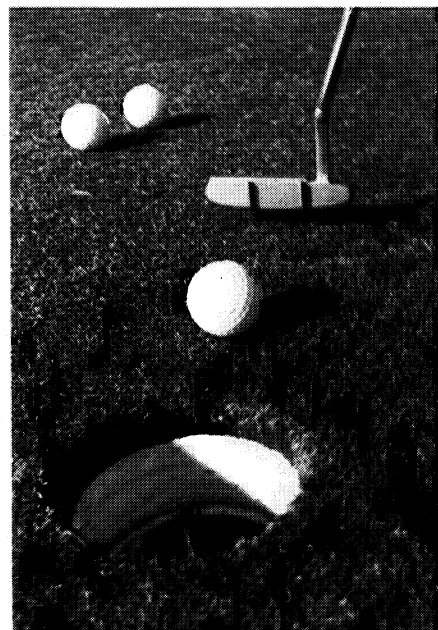
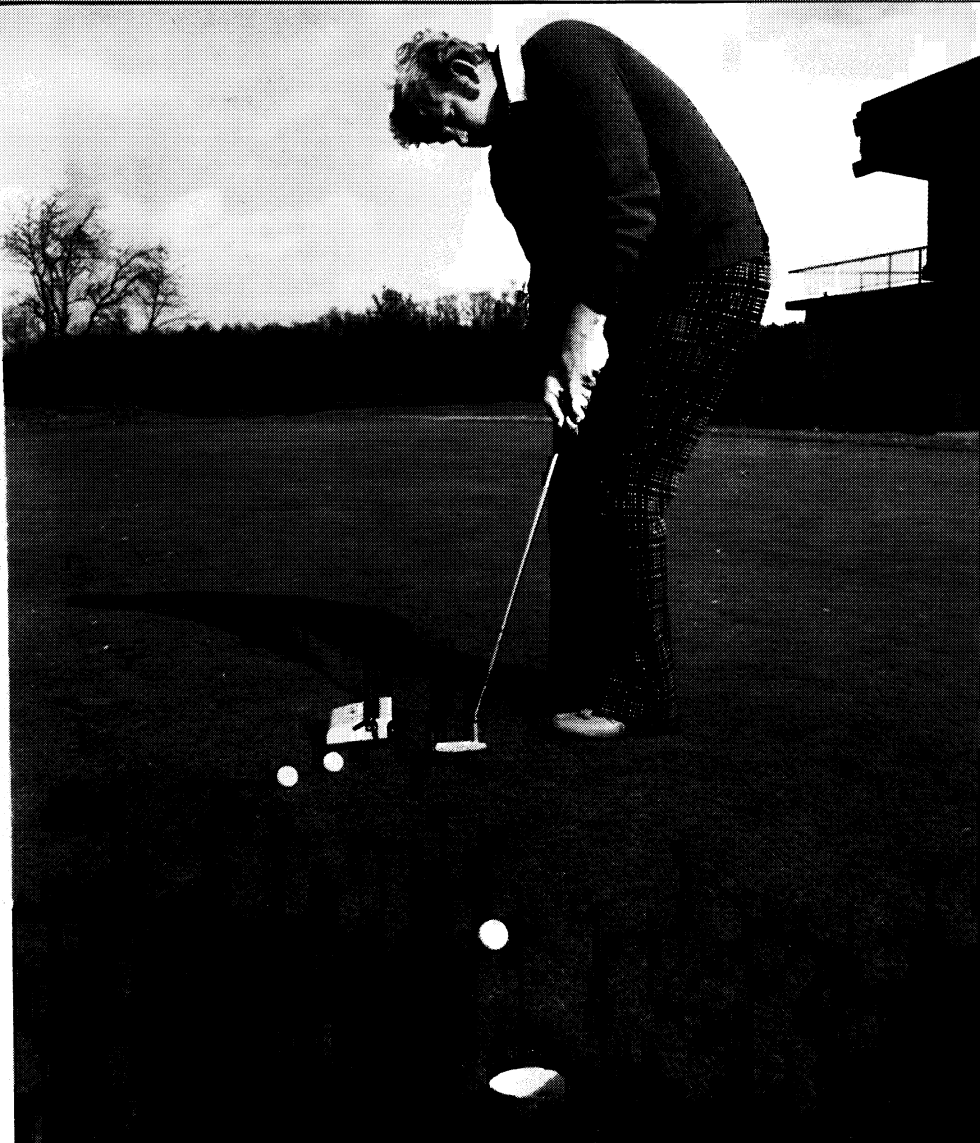
In the first of his developments—a special putter called The Teacher—Pelz drew upon his knowledge of energy transfer for a method of teaching golfers how to stroke the ball consistently in the putter's "sweet spot." The sweet spot is the point on the club's face where club and ball must meet if the putt is to attain proper speed, distance and direction.

The Teacher is a simple device. It has a pair of prongs on the putter face bracketing the sweet spot. The idea is to stroke the ball within the prongs, which are only slightly farther apart than a ball's width. The novice will find it almost impossible to do so; the ball will hit a prong and skitter away. But, says Dave Pelz, The Teacher

shows you why you missed, enabling correction. With time and practice, you develop a consistently smooth putting stroke, impacting at the sweet spot regularly. To use the club in normal play, you remove the prongs and snap them into grooves on the back side of the putter, thus your game club has the same weight and same sweet spot as the practice tool. Pelz has a fat file of testimonials, including many from touring pros, to the effect that The Teacher really works.

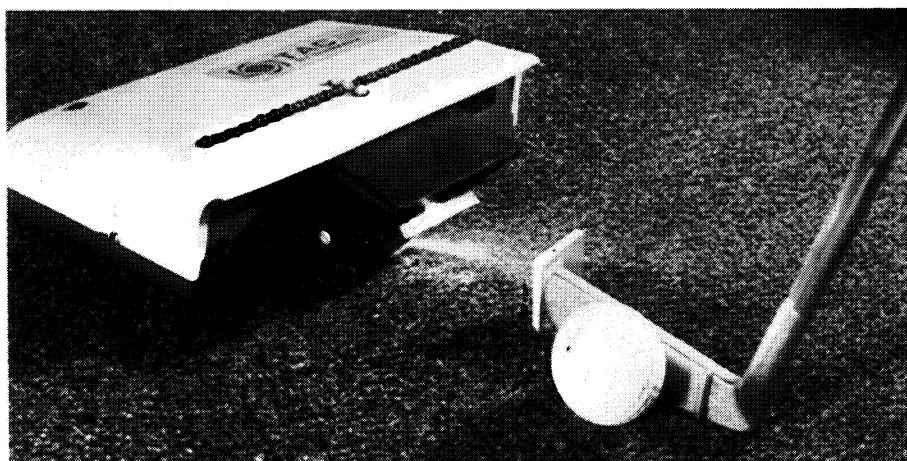
The other Sunmark putting aid—called the Teacher Alignment Computer (TAC)—is somewhat more complex, involving several aerospace technologies—electronics, optics, data acquisition and data processing techniques. The device is a computerized system which tells a golfer whether his putter's face is properly aligned with the hole—and if not, whether he is aiming left or right and how much. Many otherwise good golfers, including tour pros, have aiming difficulties; regular practice with the teaching computer, Pelz maintains, will cure the problem and dramatically improve putting technique.

The TAC, which sells for \$1,000 and upward depending on the model, can be plugged into a socket or used outdoors in a battery-powered version. It works this way: a sighting mechanism is employed to align the computer exactly perpendicular to the target—a golf hole or a spot on the home carpet. A small mirror is affixed to the outer edge of the putter blade. When the golfer addresses the ball, the TAC emits a beam of light which is reflected by the mirror back into the computer's optical system. Computer measure-



A related putting aid is The Teacher shown here. The idea is to stroke the ball at the putter's "sweet spot," which is bracketed by metal prongs. Regular practice develops solid impacts for better putting.

Inventor Dave Pelz demonstrates his space-spinoff Teacher Alignment Computer, which helps golfers learn proper putting aim. The close-up at right illustrates how it works. The light beam, reflected into the computer, measures putter alignment and the lights atop the box tell the golfer he is on target (the three green lights) or off to either side and how much.



ment of the beam determines whether the putter is faced on target, or to left or right, at both address and impact. The information is displayed by a row of lights atop the device; a green light indicates perfect alignment, yellow means slightly off and red means far off. Within each color grouping, a specific light points out the degree and direction of misalignment.

The TAC is used by individual

golfers, by teaching professionals, by 30 members of the male pro circuit and eight women pros. Here again Pelz has a wallful of testimonials, including many from people whose names are familiar to golfers—Andy North, Jim Simons, Tom Kite, Jerry Pate, Joe Inman, Tom Purtzer, Jan Stephenson, Carol Mann, Hollis Stacey and others. Famed teacher Bob Toski calls the TAC "the best device for

teaching putting that I have ever seen." A particular enthusiast is Lee Trevino, who says:

"Before I used the TAC, I never knew *why* I missed a putt. This machine tells you why you hit the ball where it finished. It builds good muscle memory and helps improve your eye-hole coordination, insuring that the blade is square at all times. I feel that my putting has improved dramatically."